Approved for use through 03/31/2007, OMB 0651-0021 U. S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE nd to a collection of information unless it displays a valid OMB control number. TRANSMITTAL LETTER TO THE UNITED STATES ATTORNEY'S DOCKET NUMBER DESIGNATED/ELECTED OFFICE (DO/EO/US) U.S. APPLICATION NO. (f known, see 37 CFR 1.5) CONCERNING A SUBMISSION UNDER 35 U.S.C. 371 10/567.536 INTERNATIONAL APPLICATION NO. INTERNATIONAL FILING DATE PRIORITY DATE CLAIMED PCT/US2004/025932 11 August 2004 11 August 2003 TITLE OF INVENTION LACCASES, NUCLEIC ACIDS ENCODING THEM AND METHODS FOR MAKING AND USING THEM APPLICANT(S) FOR DO/EO/US Tim HITCHMAN et al. Applicant herewith submits to the United States Designated/Elected Office (DO/EO/US) the following items and other information: This is a FIRST submission of items concerning a submission under 35 U.S.C. 371. 2. X This is a SECOND or SUBSEQUENT submission of items concerning a submission under 35 U.S.C. 371. 3 This is an express request to begin national examination procedures (35 U.S.C. 371(f)). The submission must include items (5), (6), (9) and (21) indicated below. The US has been elected (Article 31). A copy of the International Application as filed (35 U.S.C. 371 (c)(2)) is attached hereto (required only if not communicated by the International Bureau). has been communicated by the International Bureau. is not required, as the application was filed in the United States Receiving Office (RO/US). An English language translation of the International Application as filed (35 U.S.C. 371(c)(2)). is attached hereto. has been previously submitted under 35 U.S.C. 154(d)(4). Amendments to the claims of the International Application under PCT Article 19 (35 U.S.C. 371(c)(3)) are attached hereto (required only if not communicated by the International Bureau). have been communicated by the International Bureau. have not been made; however, the time limit for making such amendments has NOT expired. have not been made and will not be made. An English language translation of the amendments to the claims under PCT Article 19 (35 U.S.C. 371(c)(3)). x An oath or declaration of the inventor(s) (35 U.S.C. 371(c)(4)). (4 pages) An English language translation of the annexes of the International Preliminary Examination Report under PCT Article 36 (35 U.S.C. 371(c)(5)). Items 11 to 20 below concern document(s) or information included: 11. x An Information Disclosure Statement under 37 CFR 1.97 and 1.98, (Supplemental, 2 pages) An assignment document for recording. A separate cover sheet in compliance with 37 CFR 3.28 and 3.31 is included. 13. x A preliminary amendment. (13 pages) An Application Data Sheet under 37 CFR 1.76. A substitute specification. A power of attorney and/or change of address letter. 17. x A computer-readable form of the sequence listing in accordance with PCT Rule 13ter.2 and 37 CFR 1.821 - 1.825. A second copy of the published International Application under 35 U.S.C. 154(d)(4). A second copy of the English language translation of the international application under 35 U.S.C. 154(d)(4).

PTO-1390 (Rev. 07-2005)
Approved for use through 03/31/2007, OMB 0651-0021
U. S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperw	ork Reducti	on Act of 19	995, no pe	ersons ar	re required to respond to	a co	llection of information un	less it	displays a v	alid (DMB control number.
U.S. APPLICATION NO. (If known, see 37 CFR 1.5) 10/567,536				INTERNATIONAL APPLICATION NO PCT/US2004/025932			ATTORNEY'S DOCKET NUMBER 564462012600				
20. X Other items or information: Copy of the Notification of Missing Requirements . Trainsmittal Letter (3 pages), Response to Notifica pages), Pations for Extension of Time for 3 Months page), 1 NPL Reference (International Search Rej							on of (1 pa	Missing R	equi	irements (3	
The foll	owina fee	es have b	een su	bmittee	d			CA	LCULATION	ıs	PTO USEONLY
The following fees have been submitted 21. Basic national fee (37 CFR 1.492(a))						\$	0.0		FIO OSEONET		
22 Examination fee (37 CFR 1.492(c)) If the written opinion prepared by ISAUS or the international preliminary examination report prepared by IPEAUS indicates all claims satisfy provisions of PCT Article 33(1)-(4)					-(4)\$0	\$	0.0	00			
23 Search fee (37 CFR 1.492(b)) If the withen opinion of the ISAUS or the international preliminary examination report prepared by IPEAUS indicates at claims easily provisions of PCT Article 33(1);43 — 55 Search fee (37 CFR 1.445(b)(2)) has been paid on the international application to the USPTO as an international Search Report prepared by an ISAC offer than the US and provided to the Office of International Search Report prepared by an ISAC other than the US and provided to the Office of Search Report prepared by an ISAC other than the US and provided to the Office of Search Report prepared by an ISAC other shadows a manifestate to the US by the IS Search Report Provided to the Office of Search Report Provided to the USP of ISAC other shadows a search Report Provided to the USP of ISAC other shadows and the USP of ISAC other shadows a search Report Provided to the USP of ISAC other shadows and the USP of ISAC other shadows are the USP of ISAC other shadows and the USP of ISAC other shadows are the USP of ISAC other shadows and the USP of ISAC other shadows are the USP of ISAC other shadows and the USP of ISAC other shadows are the USP of ISAC other shadows are the USP of ISAC other shadows and the USP of ISAC other shadows are the USP of ISAC					\$	0.0	00				
		F 21, 22 ar						\$	0.0	00	
Additional fee for specification and drawings filed in paper over 100 sheets (excluding sequence listing in compliance with 37 CFR 1.821(c) or (e) or computer program listing in an electronic medium) (37 CFR 1.482(ii). The fee is \$250 for each additional 50 sheets of paper or fraction thereof.					program listing in an						
Total Sheets	tets Extra Sheets Number of each additional 50 or fraction thereof (round up to a whole number)					RATE					
255 -100=	155	/50 =	4 x \$250.00				x \$250.00	\$	1000.0	00	
Surcharge of \$130 for furnishing any of the search fee, examination fee, or the oath or declaration after the date of commencement of the national stage (37 CFR 1.492(h)).						\$ 130.00					
CLAIMS	;	NUMBI	ER FILE		NUMBER EXTRA		RATE				
Total claims 46 - 20		- 20 =	20 = 26 >			50.00	1,300.00				
Independent claims 4 - 3			3 = 1 x			200.00	200.00				
MULTIPLE DEPENDENT CLAIM(S) (if applicable) +											
TOTAL OF ABOVE CALCULATIONS =					\$ 2630.00						
X Applicant claims small entity status. See 37 CFR 1.27. Fees above are reduced by 1/2.						1315.00					
SUBTOTAL =					\$	1315.0	00				
Processing fee of \$130.00 for furnishing the English translation later than 30 months from the earliest claimed priority date (37 CFR 1.492(i)).					\$						
TOTAL NATIONAL FEE =					\$ 1315.00						
Fee for recording by an appropriate	the enclose cover she	sed assignr eet (37 CFF	ment (37 R 3.28, 3.	CFR 1.2 .31). \$4 0	21(h)). The assignment 3.00 per property	t mu	st be accompanied +	\$			
Extension for Response Within The Third Month (37 CFR 1.17(a)(2))					\$ 510.00						
TOTAL FEES ENCLOSED =					\$ 1825.00						
									ount to be nded:	\$	
								Amo	ount to be rged	\$	

PTO-1390 (Rev. 07-2005)
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Under the Paperwork Peduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number

a. A check in the amount of \$ to cover the a	above fees is enclosed.
b. X Please charge my Deposit Account No. 03-1952 in the and uplicate copy of this sheet is enclosed.	amount of \$1825.00 to cover the above fees.
c. X The Commissioner is hereby authorized to charge any additional fe Account No. 03-1952 . A duplicate copy of this sh	
d. Fees are to be charged to a credit card. WARNING: Information should not be included on this form. Provide credit card inform	on this form may become public. Credit card information nation and authorization on PTO-2038
NOTE: Where an appropriate time limit under 37 CFR 1.495 has not b filed an granted to restore the International Application to pending st	
SEND ALL CORRESPONDENCE TO:	/Gregory P. Einhorn/
	SIGNATURE
	Gregory P. Einhorn
CUSTOMER NUMBER: 45975	NAME
COSTOMER NOWBER. 40970	38,440
	REGISTRATION NUMBER



United States Patent and Trademark Office

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address COMMISSIONER FOR PATENTS PO. Bes 1600 Advancias, Vegrus 22313-1450 www.upba.gov

 U.S. APPLICATION NUMBER NO.
 FIRST NAMED APPLICANT
 ATTY. DOCKET NO.

 10/567,536
 Tim Hitchman
 564462012600

INTERNATIONAL APPLICATION NO.

PCT/US04/25932

LA. FILING DATE PRIORITY DATE

08/11/2004

OC000000020215970

45975 DIVERSA C/O MOFO S.D. 12531 HIGH BLUFF DRIVE SUITE 100 SAN DIEGO, CA 92130-2040

CONFIRMATION NO. 9324 371 FORMALITIES LETTER

08/11/2003

Date Mailed: 08/29/2006

NOTIFICATION OF MISSING REQUIREMENTS UNDER 35 U.S.C. 371 IN THE UNITED STATES DESIGNATED/ELECTED OFFICE (DO/EO/US)

The following items have been submitted by the applicant or the IB to the United States Patent and Trademark Office as a Designated / Elected Office (37 CFR 1.495).

- · Indication of Small Entity Status
- Copy of the International Application filed on 02/07/2006
- Information Disclosure Statements filed on 08/15/2006
- Biochemical Sequence Listing filed on 02/07/2006
- U.S. Basic National Fees filed on 02/07/2006.
- Priority Documents filed on 02/07/2006
- Specification filed on 02/07/2006
- Claims filed on 02/07/2006
- Drawings filed on 02/07/2006
- Paper nucleotide sequence listings filed on 02/07/2006

The applicant needs to satisfy supplemental fees problems indicated below.

The following items MUST be furnished within the period set forth below in order to complete the requirements for acceptance under 35 U.S.C. 371:

- Additional claim fees of \$9055 as a small entity, including any required multiple dependent claim fee, are required. Applicant must submit the additional claim fees or cancel the additional claims for which fees are due.
- Oath or declaration of the inventors, in compliance with 37 CFR 1.497(a) and (b), identifying the application
 by the International application number and international filing date.
- To avoid abandonment, a surcharge (for late submission of filing fee, search fee, examination fee or oath
 or declaration) as set forth in 37 CFR 1.492(h) of \$55 for a small entity in compliance with 37 CFR 1.27,
 must be submitted with the mission items identified in this letter.

SUMMARY OF FEES DUE:

Total additional fees required for this application is \$9870 for a Small Entity:

- \$65 Surcharge.
 - A copy of the "Sequence Listing" in computer readable form has not been submitted as required by 37 CFR 1.821(e). If the effective filing date is on or after September 8, 2000, see the final rulemaking notice published in the Federal Register at 65 FR 54604 (September 8, 2000) and 1238 OG 145 (September 19, 2000). Applicant must provide an initial computer readable form (CRF) copy of the "Sequence Listing" and statement that the content of the sequence listing information recorded in computer readable form is identical to the written (on paper or compact disc) sequence listing and, where applicable, includes no new matter, as required by 37 CFR 1.821(e), 1.821(f), 1.821(g), 1.825(g), or 1.825(g). If applicant desires the sequence listing in the instant application to be identical with that of another application on file in the U.S. Patent and Trademark Office, such request in accordance with 37 CFR 1.821(e) may be submitted in lieu of a new CRF.

Additionally the following defects have been observed:

- The International Search Report has not be supplied, the Search Fee has been adjusted to reflect this
 omission.
- The specification and drawings contain more than 100 pages. Applicant owes \$500 for 155 pages in excess of 100 pages for a small entity in compliance with 37 CFR 1.27.
- The application search fee has not been paid. Applicant must submit \$250 to complete the search fee.
 Note a surcharge will be required if submitted later than commencement of the national stage (37 CFR 1.492(h)) and the basic national fee was not paid before July 1, 2005.
- Total additional claim fee(s) for this application is \$ 9055
 - \$900 for 9 independent claims over 3.
 - \$7975 for 319 total claims over 20.
 - \$180 for multiple dependent claim surchare.

Applicant is cautioned that correction of the above items may cause the specification and drawings page count to exceed 100 pages. If the specification and drawings exceed 100 pages, applicant will need to submit the required application size fee.

For questions regarding compliance to 37 CFR 1.821-1.825 requirements, please contact;

- For Rules Interpretation, call (571) 272-0951
- For Patentin Software Program Help, call Patent EBC at 1-866-217-9197 or directly at 703-305-3028 / 703-308-6845 between the hours of 6 a.m. and 12 midnight, Monday through Friday, EST.
- Send e-mail correspondence for Patentin Software Program Help @ ebc@uspto.gov

ALL OF THE ITEMS SET FORTH ABOVE MUST BE SUBMITTED WITHIN TWO (2) MONTHS FROM THE DATE OF THIS NOTICE OR BY 32 MONTHS FROM THE PRIORITY DATE FOR THE APPLICATION, WHICHEVER IS LATER. FAILURE TO PROPERLY RESPOND WILL RESULT IN ABANDONMENT.

The time period set above may be extended by filing a petition and fee for extension of time under the provisions of 37 CFR 1.136(a).

Applicant is reminded that any communications to the United States Patent and Trademark Office must be mailed to the address given in the heading and include the U.S. application no. shown above (37 CFR 1.5)

A copy of this notice MUST be returned with the response.

JOHN L ANDERSON

Telephone: (703) 308-9140 EXT 211

PART 2 - OFFICE COPY

Г	U.S. APPLICATION NUMBER NO.	INTERNATIONAL APPLICATION NO.	ATTY. DOCKET NO.
	10/567,536	PCT/US04/25932	564462012600

FORM PCT/DO/EO/905 (371 Formalities Notice)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In the application of:

Tim HITCHMAN et al.

Application No.: 10/567,536 Confirmation No.: 9324

Filing Date (Int'l.): August 11, 2004 Art Unit: 1652

For: LACCASES, NUCLEIC ACIDS ENCODING Examiner: Not Yet Assigned
THEM AND METHODS FOR MAKING AND

USING THEM

RESPONSE TO NOTIFICATION OF MISSING REQUIREMENTS UNDER 35 U.S.C. 371 IN THE UNITED STATES DESIGNATED/ELECTED OFFICE (DO/EO/US)

MAIL STOP PCT Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Dear Sir:

This is in response to the Notification of Missing Requirements Under 35 U.S.C. 371 In The United States Designated/Elected Office (DO/EO/US), mailed August 29, 2006, for which a response was due on October 29, 2006. Submitted herewith is a request for a three-month extension of time to extend the deadline to January 29, 2006. Accordingly, this response is timely filed.

Please enter the following Sequence Listing and remarks.

In the Sequence Listing:

Please insert the attached electronic copy of the Sequence Listing in the abovementioned application. A computer readable form copy of the Sequence Listing accompanies this response as a .txt file. REMARKS

The undersigned hereby states that the electronically filed computer readable form

copy of the Sequence Listing and the paper copy of the Sequence Listing previously

submitted in accordance with 37 C.F.R. § 1.825(a) and (b), respectively, are the same with

the exception of caption information in the header and contain no new matter. Accordingly,

entry of the Sequence Listing into the above-captioned case is respectfully requested.

The Notification of Missing Requirements indicates that because the International

Search Report was not filed, the fee needs to be adjusted to \$250. However, the U.S. was

elected as the International Search Authority under Article 31 (see Box 4 of page 1 of the

transmittal documents, a copy of which is enclosed herewith). Accordingly, a \$100 Search

Fee was correctly calculated in the original filing documents (see Box 23 of page 2). (A copy

of the International Search Report has been provided with the concurrently filed Supplemental

Information Disclosure Statement.)

In the unlikely event that the transmittal letter is separated from this document and the

Patent Office determines that an extension and/or other relief is required, Applicants petition

for any required relief including extensions of time and authorize the Commissioner to charge the cost of such petitions and/or other fees due in connection with the filing of this document

to Deposit Account No. 03-1952 referencing docket no. 564462012600. However, the

Commissioner is not authorized to charge the cost of the issue fee to the Deposit Account.

Respectfully submitted.

Date: January 3, 2007 Bv: /Gregory P. Einhorn/

Gregory P. Einhorn Registration No. 38,440

Morrison & Foerster LLP

12531 High Bluff Dr., Suite 100

San Diego, CA 92130-2040 Telephone: (858) 720-5133

Facsimile: (858) 720-5125

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Serial No. 10/567,536 Docket No. 564462012600